

IN THE CLAIMS

1. (Original) A process for producing an antibody against a glypican protein comprising immunizing a nonhuman animal that develops autoimmune disease with a glypican protein.

2. (Original) A process for producing an antibody against a glypican protein comprising immunizing an autoantibody-producing nonhuman animal with a glypican protein.

3. (Original) The process for producing an antibody against a glypican protein according to claim 1 or 2, wherein the nonhuman animal that develops autoimmune disease or the autoantibody-producing nonhuman animal is a nonhuman animal with Fas function defects.

4. (Original) The process for producing an antibody against a glypican protein according to claim 3, wherein the nonhuman animal is a mouse.

5. (Original) The process for producing an antibody against a glypican protein according to claim 4, wherein the mouse is the MRL/lpr mouse.

6. (Previously Presented) The process for producing an antibody against a glypican protein according to claim 1, wherein the glypican protein is glypican 3.

7. (Previously presented) A process for producing an antibody comprising immunizing a nonhuman animal with Fas function defects with a human antigen which has homology of 90% or more at the amino acid sequence level to a homolog protein of the nonhuman animal to be immunized.

8. (Original) The process for producing an antibody according to claim 7, wherein the nonhuman animal is a mouse.

9. (Original) The process for producing an antibody according to claim 8, wherein the mouse is the MRL/lpr mouse.

10-11. (Canceled)

12. (Previously presented) The process for producing an antibody according to claim 7, wherein the amino acid sequence homology is 94% or higher.

13. (New) The process of claim 1, wherein said autoimmune disease is selected from the group consisting of autoimmune hepatitis, autoimmune thyroiditis, autoimmune bullous dermatosis, autoimmune inflammation of the adrenal cortex, autoimmune hemolytic anemia, autoimmune thrombocytopenic purpura, autoimmune atrophic gastritis, autoimmune neutropenia, autoimmune orchitis, autoimmune encephalomyelitis, autoimmune receptor disease, autoimmune infertility, rheumatism, Crohn's disease, systemic erythematodes, multiple sclerosis,

Basedow's disease, juvenile diabetes, Addison's disease, myasthenia gravis, and phacogenic uveitis.

14. (New) The process of claim 7, wherein said Fas function defects comprises at least survival of B cells that respond to an autoantigen and produce an excess amount of autoantibody as compared to normally functional B cells.

15. (New) The process of claim 7, wherein said Fas function defect is caused by a mutation in the Fas ligand gene.

16. (New) The mouse of claim 8, wherein said mouse has abnormal T cell accumulation as compared to a normal mouse, and wherein said mouse has a systemic erythematodes-like autoimmune disease.

17. (New) The mouse of claim 8, wherein said mouse is selected from the group consisting of a MRL/gld mouse, a MRL/Mp-+/+ mouse, a NZB/NZW F1 mouse, a BXSB/MpJ mouse, a B/WF1 mouse, a BXSB mouse and a SL/Ni mouse.

18. (New) The mouse of claim 8, wherein said mouse is a mouse in which expression of Fas or Fas ligand is artificially repressed.

19. (New) The process of claim 7, wherein the nonhuman animal is a rat, mouse or rabbit.

20. (New) The process of claim 1, wherein the nonhuman animal is a rat, mouse or rabbit.

21. (New) The process of claim 3, wherein said Fas function defects comprises at least survival of B cells that respond to an autoantigen and produce an excess amount of autoantibody when compared to normally functional B cells.

22. (New) The process of claim 3, wherein said Fas function defect is caused by a mutation in the Fas ligand gene.

23. (New) The mouse of claim 4, wherein said mouse has abnormal T cell accumulation as compared to a normal mouse, and wherein said mouse has a systemic erythematodes-like autoimmune disease.

24. (New) The mouse of claim 4, wherein said mouse is selected from the group consisting of a MRL/gld mouse, a MRL/Mp-+/+ mouse, a NZB/NZW F1 mouse, a BXSB/MpJ mouse, a B/WF1 mouse, a BXSB mouse and a SL/Ni mouse.

25. (New) The mouse of claim 4, wherein said mouse is a mouse in which expression of Fas or Fas ligand is artificially repressed.